

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claim 1 (currently amended): A storage library system, comprising:
a vertical stationary support member having a first major axis oriented vertically; and
a cartridge transport assembly, comprising:
a cartridge retrieving mechanism configured to retrieve a removable media cartridge,
said cartridge transport assembly being coupled to the vertical stationary support member for
movement along the first major axis, wherein the cartridge retrieving mechanism is positionable in
[[four]] five degrees of freedom, wherein:
a first degree of freedom comprising linear movement along the vertical stationary
support member,
a second degree of freedom comprising linear movement along a second axis
approximately orthogonal to the first major axis,
a third degree of freedom comprising linear movement along a third axis approximately
orthogonal to the first major axis and the second axis,
a fourth degree of freedom comprising rotational movement about a fourth axis, and
a fifth degree of freedom comprising radial extension of the cartridge retrieving
mechanism, the fifth degree of freedom orthogonal to the fourth axis.

Claims 2-6 (cancelled)

Claim 7 (currently amended): The storage library system of claim [[6]] 1, further comprising:

an enclosure having a first side wall, an opposing second side wall, and a back wall adjacent to the first and second side walls;

a cavity region between the first side wall, the second side wall, and the back wall, the vertical stationary support member and the cartridge transport assembly being positioned in the cavity region.

Claim 8 (original): The storage library system of claim 7, further comprising:
a plurality of storage bins disposed on the first and second side walls.

Claim 9 (original): The storage library system of claim 7, further comprising:
at least one tape drive disposed on the back wall.

Claim 10 (currently amended): A storage library system, comprising:
a vertical stationary support member having a first major axis oriented vertically;
a cartridge transport assembly coupled to the vertical stationary support member and
moveable along the first major axis, the cartridge transport assembly comprising:
a first assembly coupled to the vertical stationary support member;
a first actuator fixed coupled to the first assembly and coupled to the vertical stationary
support member ~~configured to actuate~~, the first actuator operable to actuate linear movement of the
first assembly along the vertical stationary support member;
a second assembly movably coupled to the first assembly;
a second actuator engaging the first and second assemblies configured to actuate linear
movement of the second assembly along a second axis non-parallel to the first major axis;
a third assembly movably coupled to the second assembly;
a third actuator engaging the second and third assemblies configured to actuate linear
movement of the third assembly along a third axis non-parallel to the first major axis and the
second axis; and
a cartridge retrieval mechanism coupled to the third assembly.

Claim 11 (original): The system of claim 10, wherein the cartridge transport assembly
further comprises:

a rotary actuator engaging the third carriage and the cartridge retrieval mechanism
configured to actuate rotational movement of the cartridge retrieval mechanism.

Claim 12 (original): The system of claim 11, wherein the cartridge transport assembly further comprises:

an extension actuator coupled to the cartridge retrieval mechanism configured to extend the cartridge retrieval mechanism to retrieve a cartridge from a storage bin in the storage library system.

Claim 13 (original): The system of claim 12, wherein the cartridge transport assembly further comprises:

a robotics controller for controlling the first, second, third, rotary, and extension actuators, and the cartridge retrieval mechanism.

Claim 14 (original): The system of claim 13, further comprising:
a library controller; and
an umbilical connection coupling the library controller with the cartridge transport assembly.

Claim 15 (original): The system of claim 10, further comprising:
a library controller; and
an umbilical cable coupling the library controller with the cartridge transport assembly, said umbilical cable providing power to the cartridge transport assembly;
wherein the cartridge transport assembly further comprises a power supply coupled to the umbilical cable for receiving power at a first voltage, the power supply configured to convert the power at the first voltage to a plurality of different voltages.

Claim 16 (original): The system of claim 10, further comprising:
an enclosure having a first side wall, an opposing second side wall, and a back wall adjacent to the first and second side walls;

a cavity region between the first side wall, the second side wall, and the back wall, the vertical support member and the cartridge transport assembly being positioned in the cavity region; and

a plurality of storage bins disposed on the first and second side walls.

Claim 17 (original): The system of claim 16, further comprising:
at least one tape drive positioned on the back wall of the enclosure.

Claim 18 (previously presented): The system of claim 10, wherein the vertical support member is positioned approximately vertically.

Claims 19-21 (cancelled)

Claim 22 (previously presented): The storage library system of claim 1, wherein the cartridge transport assembly comprises a horizontally disposed tray assembly for supporting the cartridge retrieving mechanism.

Claim 23 (previously presented): The system of claim 10, wherein the first assembly comprises a horizontally disposed tray assembly for supporting the second assembly.